

ABSTRACT

A photo amplifying apparatus for amplifying wavelength division multiplexed signals includes a specific wavelength measuring unit for 5 measuring a specific wavelength at a measuring point, a total power measuring unit for measuring all wavelengths at the measuring point, and an output control unit for controlling the output of the photo amplifying apparatus based on the light power 10 measured by the specific wavelength measuring unit and the total power measuring unit. Since the photo amplifying apparatus measures both the specific wavelength and all wavelengths, the photo amplifying apparatus can determine change in the number of 15 multiplexed wavelengths and the gain gradient of the photo signals, and can properly control its output level.